

DANGER SIGNS ON DUXBURY BEACH

By Richmond Poole

To ecologists - scientists who study the interrelationships among living things (including man) and their environment - there are certain indicators of healthy, stable conditions, and sick, sterile conditions in nature. Species diversity, the variety of species of plants and animal organisms, is a reliable indicator of the health of the land, air and water. A given stable community in a state of dynamic equilibrium with the ecosystem of which it is an integral part, will have a great variety of species coexisting. A disturbed community - one being drained of its essential resources and integrity - will reflect this condition in its relatively few species.

Last Saturday morning I walked among the dunes along Duxbury Beach near the end of Long Bridge. In a brief time that morning I became aware that the integrity of the Duxbury Beach is threatened. Barrier beaches, such as Duxbury Beach, are ephemeral structures formed by the interaction of wind, waves, salt and vegetation, and a host of other climatic and biotic factors. Vegetation plays a crucial role in dune formation and stabilization. Many of the beach community species thrive, as they do nowhere else, due to unique adaptations to the severe environment they inhabit.

Without vigorous vegetation the dunes are at the mercy of the wind and waves of Northeast storms. Only vigorous vegetation can maintain the dunes against the destructive forces of human footsteps and beach buggy tires.

In my opinion, the beach may be an island in a few years. Another season or two of wind action, human trampling, and beach buggy abuse could so destroy the remaining dunes that huge storm waves would cut a channel across the beach. Today, running for 50 to 200 feet, are "blowouts," where dunes have disappeared. It is these "blowouts" which would become washouts during a severe storm. If tidal action ever gets an opportunity to work on a cut through the beach, the consequences would be disastrous. In late May, 1966, I watched waves rush up the beach and into the parking lot at the end of Long Bridge. The dunes suffered then, but what remains may suffer irreparable damage unless action is taken to stabilize the sand and vegetation on the beach.

I have some ideas about what needs to be done. As an ecology student at Yale, I have become aware of widespread environmental degradation, which knows no limits among towns or people. But, it is people who can help repair the wounds of neglect and misuse. Think about species diversity as an indicator of stability or sterility, think about the possibility of the beach as an island, take a walk down the beach this winter and SEE for yourself. When you've done these few things, perhaps you'll be ready to contribute to the much hard work and self restraint needed to save and stabilize Duxbury Beach.



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land, Germany, Denmark, Italy and Switzerland. He is Jordan Marsh's purchasing agent for ladies fashions. Mrs. Mitsock won the Women's Golf Championship at the Wellesley Country Club this summer, although she has been playing golf for only six years.